

TABLE 4-1
SCOPE OF WORK TASKS
FTDP FACILITY
DAMASCUS, VIRGINIA

Task	Phase I	Phase I _R	Phase II	Start Date	Finish Date
Mobilization	✓			6/4/96	6/13/96
Removal Area and Property Boundary Surveying	✓			7/8/96	7/8/96
Silt Fence/Straw Bale Installation	✓			6/10/96	7/14/96
Additional Silt Fence/Straw Bale Installation		✓	✓	9/11/96	10/14/96
Clearing and Grubbing	✓			6/6/96	7/12/96
Additional Clearing/Grubbing		✓	✓	9/10/96	9/25/96
Pre-Removal Waste Characterization Sampling	✓			6/12/96	6/14/96
Additional Waste Characterization Sampling			✓	9/18/96	10/9/96
Asbestos Sampling	✓			6/12/96	6/12/96
Borrow Pit Sampling	✓			6/5/96	6/5/96
Access Road Construction	✓			6/10/96	7/8/96
Additional Access Road Construction			✓	9/10/96	9/14/96
Phase I Lead Hot Spot Removal/Backfill	✓			6/18/96	7/18/96
Small Colored Soil Removal/Backfill	✓			6/11/96	6/11/96
Expanded Small Colored Soil Area Removal		✓	✓	6/11/96	7/23/96
Large Colored Soil Removal/Backfill	✓			7/11/96	8/19/96
Expanded Large Colored Soil Area Removal		✓	✓	8/19/96	8/27/96
Flood Debris Landfill Contents Removal/ Backfill	✓			8/2/96	8/6/96
Expanded Flood Debris Landfill Contents Removals		✓	✓	8/6/96	8/20/96
Confirmatory Sampling	✓			6/12/96	8/27/96
Additional Confirmatory Sampling		✓	✓	10/9/96	10/30/96
Railroad Tie Removal	✓			6/17/96	8/20/96
Expanded Railroad Tie Removal			✓	10/3/96	11/18/96
Cistern Removal	✓			NP	NP
Warehouse Building Asbestos Removal		✓	✓	8/1/96	8/3/96
Warehouse Building Steel Truss Removal/Salvage		✓	✓	8/18/96	8/19/96

TABLE 4-1 (Continued)
SCOPE OF WORK TASKS
FTDP FACILITY
DAMASCUS, VIRGINIA

Task	Phase I	Phase I _R	Phase II	Start Date	Finish Date
Warehouse Building Water Supply Sump Removal/Backfill		✓	✓	8/16/96	8/16/96
Warehouse Demolition	✓			8/19/96	8/24/96
Bunker Demolition		✓	✓	7/24/96	7/26/96
Northern Process Area Soil Cover Construction	✓			7/10/96	10/15/96
Northern Process Area Topographic Surveying		✓	✓	9/5/96	9/5/96
Revised Northern Process Area Soil Cover Placement		✓	✓	9/5/96	11/16/96
Northern Process Area Drainage Swale Construction		✓	✓	10/14/96	10/14/96
Off-Site Culvert Cleanout	✓			11/16/96	11/16/96
On-Site Culvert/Plant Road Removal	✓			11/18/96	11/19/96
Existing On-Site Drainage Swale Restoration	✓			11/16/96	11/19/96
New On-Site Drainage Swale Construction	✓			8/26/96	11/16/96
New Off-Site Drainage Swale Construction	✓			NP	NP
Eastern Berm Grading	✓			NP	NP
Grid Sampling Implementation			✓	8/5/96	8/20/96
Wood Products Facility Concrete Foundation Rubble Removal/Backfill			✓	9/17/96	10/2/96
Phase II Soil Removal/Backfill			✓	10/3/96	11/18/96
Piezometer Installation			✓	10/8/96	10/9/96
Decontamination Pad Removal	✓			11/15/96	11/16/96
Waste Disposal	✓			8/1/96	8/27/96
Additional Waste Disposal			✓	10/21/96	11/18/96
Site Perimeter Fence Repair	✓			11/6/96	11/25/96
Permanent Vegetation Establishment	✓			8/17/96	9/11/96
Additional Permanent Vegetation Establishment		✓	✓	9/11/96	11/20/96
Utilities Termination	✓			11/25/96	11/25/96
Site Trailer Removal/Disposal	✓			NP	NP
Monitoring Well Abandonment		✓		2/10/97	2/12/97
Demobilization	✓			11/21/96	11/25/96

NP = Not Performed

TABLE 4-2

AIR SAMPLING (LEAD ANALYSIS)

Sample Number	Date	Job Classification	Concentration (mg/m ³)	Laboratory	Corresponding Laboratory Report
BD-1	6/18/96	Operator	<0.009	SSM Laboratories	Analytical Report June 21, 1996
BD-2	6/18/96	Laborer	<0.009	SSM Laboratories	Analytical Report June 21, 1996
Test	6/18/96	Blank	<0.008 mg/sample	SSM Laboratories	Analytical Report June 21, 1996
GM-1	9/26/96	Blank	<0.01	SSM Laboratories	Analytical Report October 1, 1996
JB-2	9/26/96	Laborer	<0.01	SSM Laboratories	Analytical Report October 1, 1996
DC-3	9/26/96	Operator	<0.01	SSM Laboratories	Analytical Report October 1, 1996

TABLE 4-3
FLOOD DEBRIS LANDFILL
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-040	NE Edge	104	Bayer	Damascus Closure August 26, 1996	4-3
BD-IM-041	SE Edge	132	Bayer	Damascus Closure August 26, 1996	4-3
BD-IM-042	S Edge	285	Bayer	Damascus Closure August 26, 1996	4-3
BD-IM-043	SW Edge	70.4	Bayer	Damascus Closure August 26, 1996	4-3
BD-IM-044	Duplicate of BD-IM-43	73.3	Bayer	Damascus Closure August 26, 1996	4-3
BD-IM-045	NW Edge	97.2	Bayer	Damascus Closure August 26, 1996	4-3
BD-IM-046	N Edge	126	Bayer	Damascus Closure August 26, 1996	4-3
BD-IM-170	Base NW	ND	Quanterra	Analytical Report September 11, 1996	4-3
BD-IM-171	Base NW	ND	Quanterra	Analytical Report September 11, 1996	4-3
BD-IM-172	Base NE	8.0	Quanterra	Analytical Report September 11, 1996	4-3
BD-IM-173	Base S	49	Quanterra	Analytical Report September 11, 1996	4-3

TABLE 4-3 (Continued)
FLOOD DEBRIS LANDFILL
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-174	Base SW	290	Quanterra	Analytical Report September 11, 1996	4-3
BD-IM-175	Base SE	50	Quanterra	Analytical Report September 11, 1996	4-3
BD-IM-176	Base W	270	Quanterra	Analytical Report September 11, 1996	4-3
BD-IM-177	Base NW	160	Quanterra	Analytical Report September 11, 1996	4-3

TABLE 4-4
LARGE COLORED SOIL AREA
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-050	Large Colored Soil Area - North	250	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-051	Large Colored Soil Area - Northwest Corner	104	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-052	Large Colored Soil Area - West	133	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-053	Large Colored Soil Area - West	596	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-054	Large Colored Soil Area - West	1,228	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-055	Large Colored Soil Area - West	508	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-056	Large Colored Soil Area - West	276	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-057	Large Colored Soil Area - South	246	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-058	Large Colored Soil Area - Southeast Corner	74.8	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-059	Large Colored Soil Area - East	55.7	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-060	Large Colored Soil Area - East	21.6	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-061	Large Colored Soil Area - East	598	Bayer	Damascus Closure August 26, 1996	4-4

TABLE 4-4 (Continued)

**LARGE COLORED SOIL AREA
CONFIRMATORY SAMPLING RESULTS**

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-062	Large Colored Soil Area - East	532	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-063	Large Colored Soil Area - East	461	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-096	Large Colored Soil Area - West (2-4')	555	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-097	Large Colored Soil Area - West (2-4')	255	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-098	Large Colored Soil Area - West (2-4')	604	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-099	Large Colored Soil Area - East (2-4')	1,143	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-100	Large Colored Soil Area - East (2-4')	874	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-101	Large Colored Soil Area - East (2-4')	446	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-105	Duplicate of BD-IM-099	1119	Bayer	Damascus Closure August 26, 1996	4-4
BD-IM-137	Large Colored Soil Area - East 61, 98 (4-6')	49.0 J	Bayer	Damascus Closure August 26, 1996	4-4
BD-LCA-01	Large Colored Soil Area - Base 22.5' South of North Boundary	49	Quanterra	Analytical Report September 11, 1996	4-4
BD-LCA-02	Large Colored Soil Area - Base 67.5' South of North Boundary	200	Quanterra	Analytical Report September 11, 1996	4-4
BD-LCA-03	Large Colored Soil Area - Base 112.5' South of North Boundary	<9.1	Quanterra	Analytical Report September 11, 1996	4-4

TABLE 4-4 (Continued)
LARGE COLORED SOIL AREA
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-LCA-04	Large Colored Soil Area - Base 157.5' South of North Boundary	16	Quanterra	Analytical Report September 11, 1996	4-4
BD-LCA-05	Large Colored Soil Area - Base 202.5' South of North Boundary	10	Quanterra	Analytical Report September 11, 1996	4-4
BD-LCA-06	Large Colored Soil Area - Blue Material Southern End	65	Quanterra	Analytical Report September 11, 1996	4-4
BD-LCA-07	Large Colored Soil Area - Blue Material Northern End	100	Quanterra	Analytical Report September 11, 1996	4-4
BD-LCA-08	Large Colored Soil Area - Base W Northern End	<6.3	Quanterra	Analytical Report September 11, 1996	4-4
BD-LCA-9	Large Colored Soil Area - Base W	12.2	Bayer	Damascus Closure September 24, 1996	4-4
BD-LCA-10	Large Colored Soil Area - Base W	32.8	Bayer	Damascus Closure September 24, 1996	4-4
BD-LCA-11	Large Colored Soil Area - Base W	6.38	Bayer	Damascus Closure September 24, 1996	4-4
BD-LCA-12	Large Colored Soil Area - Base W	9.02	Bayer	Damascus Closure September 24, 1996	4-4
BD-LCA-13	Large Colored Soil Area - Base W	123	Bayer	Damascus Closure September 24, 1996	4-4

Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-5
LEAD HOT SPOT 1
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Reference Figure
BD-IM-009	Lead Hot Spot 1 - North	113.8	Bayer	Damascus Closure August 26, 1996	4-6
BD-IM-010	Lead Hot Spot 1 - South	93.3	Bayer	Damascus Closure August 26, 1996	4-6
BD-IM-011	Lead Hot Spot 1 - East	34.1	Bayer	Damascus Closure August 26, 1996	4-6
BD-IM-012	Lead Hot Spot 1 - West	274	Bayer	Damascus Closure August 26, 1996	4-6
BD-IM-092	Lead Hot Spot 1 Base (12-18")	233	Bayer	Damascus Closure August 26, 1996	4-6

TABLE 4-6
LEAD HOT SPOT 2
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-013	Lead Hot Spot 2 - North	4,381	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-014	Lead Hot Spot 2 - West	350	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-015	Lead Hot Spot 2 - East	1,929	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-016	Lead Hot Spot 2 - South	995	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-067	Lead Hot Spot 2 - North (2-4')	2,551	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-068	Lead Hot Spot 2 - North (4-6')	1,673	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-069	Lead Hot Spot 2 - East (2-4')	556	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-070	Lead Hot Spot 2 - East (4-6')	549	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-102	Lead Hot Spot 2 - North (6-8')	1,443	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-103	Lead Hot Spot 2 - North (Duplicate of BD-IM-102)	1,608	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-104	Lead Hot Spot 2 - North (8-10')	2,532	Bayer	Damascus Closure August 26, 1996	4-7

TABLE 4-6 (Continued)

**LEAD HOT SPOT 2
CONFIRMATORY SAMPLING RESULTS**

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-106	Lead Hot Spot 2 - South (2-4')	377	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-127	Lead Hot Spot 2 - South (4-6')	208	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-129	Lead Hot Spot 2 - North (12-14')	2,100 J	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-140	Lead Hot Spot 2 - North (14-16')	4,042	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-148	Lead Hot Spot 2 - North (18-20')	728	Bayer	Damascus Closure August 26, 1996	4-7
BD-IM-151	Lead Hot Spot 2 - East (15'E, 11-29'N)	790	Quanterra	Analytical Report September 11, 1996	4-7
BD-IM-152	Lead Hot Spot 2 - North (25-29')	4,700	Quanterra	Analytical Report September 11, 1996	4-7
BD-IM-153	Lead Hot Spot 2 - West (11'E, 11-29'N)	290	Quanterra	Analytical Report September 11, 1996	4-7
BD-IM-154	Duplicate of BD-IM-153	290	Quanterra	Analytical Report September 11, 1996	4-7

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-7
LEAD HOT SPOT 3
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-017	Lead Hot Spot 3 - North	24.4	Bayer	Damascus Closure August 26, 1996	4-8
BD-IM-018	Lead Hot Spot 3 - East	18.3	Bayer	Damascus Closure August 26, 1996	4-8
BD-IM-019	Lead Hot Spot 3 - South	23.4	Bayer	Damascus Closure August 26, 1996	4-8
BD-IM-020	Lead Hot Spot 3- West	17.0	Bayer	Damascus Closure August 26, 1996	4-8
BD-IM-094	Lead Hot Spot 3 - Base (12-18")	83.1	Bayer	Damascus Closure August 26, 1996	4-8

TABLE 4-8

**LEAD HOT SPOT 4
CONFIRMATORY SAMPLING RESULTS**

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-021	Lead Hot Spot 4 - North	1,959	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-022	Lead Hot Spot 4 - South	2,769	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-023	Lead Hot Spot 4 - East	4,707	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-024	Lead Hot Spot 4 - West	4,538	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-081	Lead Hot Spot 4 - North (2-4')	454	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-082	Lead Hot Spot 4 - North (4-6')	850	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-083	Lead Hot Spot 4 - South (2-4')	2,003	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-084	Lead Hot Spot 4 - South (Duplicate of 83)	1,805	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-085	Lead Hot Spot 4 - South (4-6')	1,702	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-086	Lead Hot Spot 4 - East (2-4')	2,542	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-087	Lead Hot Spot 4 - East (4-6')	3,795	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-088	Lead Hot Spot 4 - West (2-4')	617	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-089	Lead Hot Spot 4 - West (4-6')	1,070	Bayer	Damascus Closure August 26, 1996	4-9

TABLE 4-8 (Continued)

**LEAD HOT SPOT 4
CONFIRMATORY SAMPLING RESULTS**

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-108	Lead Hot Spot 4 - East (6-8')	1,353	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-109	Lead Hot Spot 4 - East (8-10')	2,168	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-110	Lead Hot Spot 4 - East (10-12')	6,701	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-111	Lead Hot Spot 4 - South (6-8')	1,099	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-112	Lead Hot Spot 4 - South (8-10')	918	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-126	Lead Hot Spot 4 - West (6-8')	430	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-130	Lead Hot Spot 4 - North (6-8')	419 J	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-131	Lead Hot Spot 4 - South (10-12')	827 J	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-132	Lead Hot Spot 4 - East (14-16')	3,530 J	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-138	Lead Hot Spot 4 - North (6-8') (Duplicate of 130)	51.1 J	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-141	Lead Hot Spot 4 - East (16-18')	2,773	Bayer	Damascus Closure August 26, 1996	4-9
BD-IM-149	Lead Hot Spot 4 - East (20-22')	3,691	Bayer	Damascus Closure August 26, 1996	4-9

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-9
LEAD HOT SPOT 5
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-025	Lead Hot Spot 5 - North	1,268	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-026	Lead Hot Spot 5 - South	2,032	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-027	Lead Hot Spot 5 - East	2,940	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-071	Lead Hot Spot 5 - South (2-4')	1,144	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-072	Lead Hot Spot 5 - South (4-6')	1,180	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-073	Lead Hot Spot 5 - East (2-4')	2,269	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-074	Lead Hot Spot 5 - East (4-6')	2,716	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-075	Lead Hot Spot 5 - North (2-4')	1,732	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-113	Lead Hot Spot 5 - North (4-6')	1,037	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-114	Lead Hot Spot 5 - North (6-8')	2,479	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-115	Lead Hot Spot 5 - South (6-8')	491	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-116	Lead Hot Spot 5 - South (8-10')	1,745	Bayer	Damascus Closure August 26, 1996	4-10

TABLE 4-9 (Continued)
LEAD HOT SPOT 5
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-117	Lead Hot Spot 5 - East (6-8')	2,809	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-118	Lead Hot Spot 5 - East (8-10')	3,535	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-119	Lead Hot Spot 5 - East (10-12')	2,045	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-133	Lead Hot Spot 5 - North (10-12')	2,541 J	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-134	Lead Hot Spot 5 - East (14-16')	24,362 J	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-135	Lead Hot Spot 5 - South (12-14')	1,133 J	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-142	Lead Hot Spot 5 - North (12-14')	2,428	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-143	Lead Hot Spot 5 - East (16-20'N)	8,473	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-144	Lead Hot Spot 5 - East (16-20'S)	79,200	Bayer	Damascus Closure August 26, 1996	4-10
BD-IM-147	Lead Hot Spot 5 - East (14-16')	16,195	Bayer	Damascus Closure August 26, 1996	4-10
A5-001	Sampling Point K (0-6")	1,400	Quanterra	Analytical Report September 11, 1996	4-13
A5-002	Sampling Point L (0-6")	3,800	Quanterra	Analytical Report September 11, 1996	4-13

TABLE 4-9 (Continued)
LEAD HOT SPOT 5
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
A5-003	Sampling Point M (0-6")	3,800	Quanterra	Analytical Report September 11, 1996	4-13
A5-004	Sampling Point N (0-6")	810	Quanterra	Analytical Report September 11, 1996	4-13
A5-005	Sampling Point O (0-6")	700	Quanterra	Analytical Report September 11, 1996	4-13
A5-006	Sampling Point P (0-6")	390	Quanterra	Analytical Report September 11, 1996	4-13
A5-007	Sampling Point V (0-6")	520	Quanterra	Analytical Report September 11, 1996	4-13
A5-008	Sampling Point W (0-6")	390	Quanterra	Analytical Report September 11, 1996	4-13
A5-009	Sampling Point X(0-6")	630	Quanterra	Analytical Report September 11, 1996	4-13
A5-010	Sampling Point Y (0-6")	510	Quanterra	Analytical Report September 11, 1996	4-13
A5-011	Sampling Point Q (0-6")	5,200	Quanterra	Analytical Report September 11, 1996	4-13
A5-012	Sampling Point R (0-6")	8,800	Quanterra	Analytical Report September 11, 1996	4-13
A5-013	Sampling Point K (18-24")	2,500	Quanterra	Analytical Report September 11, 1996	4-13
A5-014	Sampling Point L (18-24")	7,800	Quanterra	Analytical Report September 11, 1996	4-13

TABLE 4-9 (Continued)
LEAD HOT SPOT 5
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
A5-015	Sampling Point M (18-24")	570	Quanterra	Analytical Report September 11, 1996	4-13
A5-016	Sampling Point N (18-24")	160	Quanterra	Analytical Report September 11, 1996	4-13
A5-017	Sampling Point O (18-24")	280	Quanterra	Analytical Report September 11, 1996	4-13
A5-018	Sampling Point P (18-24")	120	Quanterra	Analytical Report September 11, 1996	4-13
A5-019	Sampling Point V (18-24")	700	Quanterra	Analytical Report September 11, 1996	4-13
A5-020	Sampling Point W (18-24")	270	Quanterra	Analytical Report September 11, 1996	4-13
A5-021	Sampling Point X (18-24")	300	Quanterra	Analytical Report September 11, 1996	4-13
A5-022	Sampling Point Y (18-24")	410	Quanterra	Analytical Report September 11, 1996	4-13
A5-023	Sampling Point Q (18-24")	14,000	Quanterra	Analytical Report September 11, 1996	4-13
A5-024	Sampling Point R (18-24")	6,300	Quanterra	Analytical Report September 11, 1996	4-13
A5-025	Duplicate of A5-006	370	Quanterra	Analytical Report September 11, 1996	4-13
DD 0-6	Sampling Point DD (0-6")	7,800	Quanterra	Analytical Report September 11, 1996	4-13

TABLE 4-9 (Continued)
LEAD HOT SPOT 5
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
DD 9-12	Sampling Point DD (9-12")	3,300	Quanterra	Analytical Report September 11, 1996	4-13
EE 0-6	Sampling Point EE (0-6")	4,800	Quanterra	Analytical Report September 11, 1996	4-13
EE 9-12	Sampling Point EE (9-12")	740	Quanterra	Analytical Report September 11, 1996	4-13
FF 0-6	Sampling Point FF (0-6")	2,300	Quanterra	Analytical Report September 11, 1996	4-13
FF 9-12	Sampling Point FF (9-12")	740	Quanterra	Analytical Report September 11, 1996	4-13
GG 0-6	Sampling Point GG (0-6")	2,100	Quanterra	Analytical Report September 11, 1996	4-13
GG 18-24	Sampling Point GG (18-24")	470	Quanterra	Analytical Report September 11, 1996	4-13
HH 0-6	Sampling Point HH (0-6")	1,700	Quanterra	Analytical Report September 11, 1996	4-13
HH 18-24	Sampling Point HH (18-24")	640	Quanterra	Analytical Report September 11, 1996	4-13
II 0-6	Sampling Point II (0-6")	2,300	Quanterra	Analytical Report September 11, 1996	4-13
II 9-12	Sampling Point II (9-12")	12,000	Quanterra	Analytical Report September 11, 1996	4-13
JJ 0-6	Sampling Point JJ (0-6")	520	Quanterra	Analytical Report September 11, 1996	4-13

TABLE 4-9 (Continued)
 LEAD HOT SPOT 5
 CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
JJ 9-12	Sampling Point JJ (9-12")	920	Quanterra	Analytical Report September 11, 1996	4-13
KK 0-6	Sampling Point KK (0-6")	380	Quanterra	Analytical Report September 11, 1996	4-13
KK 9-12	Sampling Point KK (9-12")	560	Quanterra	Analytical Report September 11, 1996	4-13
MM-1	Sampling Point MM (0-6")	1,200	Quanterra	Analytical Report September 11, 1996	4-13
MM-2	Sampling Point MM (9-12")	3,700	Quanterra	Analytical Report September 11, 1996	4-13
NN-1	Sampling Point NN (0-6")	9,700	Quanterra	Analytical Report September 11, 1996	4-13
NN-2	Sampling Point NN (6-9")	2,200	Quanterra	Analytical Report September 11, 1996	4-13
OO-1	Sampling Point OO (0-6")	2,500	Quanterra	Analytical Report September 11, 1996	4-13
OO-2	Sampling Point OO (9-12")	750	Quanterra	Analytical Report September 11, 1996	4-13
PP-1	Sampling Point PP (0-6")	570	Quanterra	Analytical Report September 11, 1996	4-13
PP-2	Sampling Point PP (12-15")	220	Quanterra	Analytical Report September 11, 1996	4-13
QQ-1	Sampling Point QQ (0-6")	1,300	Quanterra	Analytical Report September 11, 1996	4-13

TABLE 4-9 (Continued)
LEAD HOT SPOT 5
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
QQ-2	Sampling Point QQ (12-15")	580	Quanterra	Analytical Report September 11, 1996	4-13
RR-1	Sampling Point RR (0-3")	3,500	Quanterra	Analytical Report September 11, 1996	4-13
RR-2	Sampling Point RR (3-6")	4,900	Quanterra	Analytical Report September 11, 1996	4-13
SS-1	Sampling Point SS (0-6")	5,800	Quanterra	Analytical Report September 11, 1996	4-13
SS-2	Sampling Point SS (9-12")	3,400	Quanterra	Analytical Report September 11, 1996	4-13
TT-1	Sampling Point TT (6-6")	1,800	Quanterra	Analytical Report September 11, 1996	4-13
TT-2	Sampling Point TT (6-9")	1,600	Quanterra	Analytical Report September 11, 1996	4-13
XX-1	Sampling Point QQ (Duplicate of QQ-1)	1,200	Quanterra	Analytical Report September 11, 1996	4-13

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-10
LEAD HOT SPOT 6
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-028	Lead Hot Spot 6 - North	966	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-029	Lead Hot Spot 6 - South	4,808	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-030	Lead Hot Spot 6 - East	489	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-031	Lead Hot Spot 6 - West	3,316	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-076	Lead Hot Spot 6 - North (2-4')	760	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-077	Lead Hot Spot 6 - South (2-4')	3,075	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-078	Lead Hot Spot 6 - South (4-6')	1,124	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-079	Lead Hot Spot 6 - West (2-4')	1,995	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-080	Lead Hot Spot 6 - West (4-6')	1,077	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-120	Lead Hot Spot 6 - North (4-6')	596	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-121	Lead Hot Spot 6 - West (8-10')	81.9	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-122	Lead Hot Spot 6 - West	449	Bayer	Damascus Closure	4-11

TABLE 4-10 (Continued)

**LEAD HOT SPOT 6
CONFIRMATORY SAMPLING RESULTS**

Sample Number	Location	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
	(6-8')			August 26, 1996	
BD-IM-123	Lead Hot Spot 6 - South (6-8')	512	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-124	Lead Hot Spot 6 - South (Duplicate of 123)	545	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-125	Lead Hot Spot 6 - South (8-10')	537	Bayer	Damascus Closure August 26, 1996	4-11
BD-IM-136	Lead Hot Spot 6 - Base (12-18")	63.6 J	Bayer	Damascus Closure August 26, 1996	4-11

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-11
LEAD LEAD HOT SPOT 7
CONFIRMATORY SAMPLING RESULTS

Sample Number	Location	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-032	Lead Hot Spot 7 - North	106	Bayer	Damascus Closure August 26, 1996	4-12
BD-IM-033	Lead Hot Spot 7 - South	212	Bayer	Damascus Closure August 26, 1996	4-12
BD-IM-034	Lead Hot Spot 7 - East	97.7	Bayer	Damascus Closure August 26, 1996	4-12
BD-IM-035	Lead Hot Spot 7 - West	388	Bayer	Damascus Closure August 26, 1996	4-12
BD-IM-036	Lead Hot Spot 7 - West (Duplicate of 35)	366	Bayer	Damascus Closure August 26, 1996	4-12
BD-IM-093	Lead Hot Spot 7 - Base (12-18")	28.4	Bayer	Damascus Closure August 26, 1996	4-12

TABLE 4-12
SIEVE ANALYSIS RESULTS

Sample Number	Location	Pan Size	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report
#1	Lead Hot Spot 5 East - Top Soil Layer	---	952	Bayer	Damascus Closure August 26, 1996
#2	Lead Hot Spot 5 East @ 9-12" (Cinders)	---	5.86	Bayer	Damascus Closure August 26, 1996
#3	Lead Hot Spot 5 East @ 24" (Soil)	---	2.81	Bayer	Damascus Closure August 26, 1996
#4	Lead Hot Spot 5 South - Top Soil Layer	---	5546	Bayer	Damascus Closure August 26, 1996
#5	Lead Hot Spot 5 South @ 9-12" (Cinders)	---	1148	Bayer	Damascus Closure August 26, 1996
#6	Lead Hot Spot 5 South @ 24" (Soil)	---	4.74	Bayer	Damascus Closure August 26, 1996
LL	Sampling Point LL	19.0 mm 9.5 mm 4.75 mm 2.0 mm <1.0 mm	2,500 1,900 15,000 12,000 13,000	Quanterra	Analytical Report September 11, 1996
UU	Sampling Point UU	<4.75 mm	170	Quanterra	Analytical Report September 11, 1996
VV	Sampling Point VV	<4.75 mm	42	Quanterra	Analytical Report September 11, 1996
BD-IM-156	150' E of PB-50 Sample Location	<4.75 mm	76	Quanterra	Analytical Report September 11, 1996

TABLE 4-13
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-PB17-002	RFI Location PB-17 - Sample Collected at 6-18" Depth Interval. Brown Silt, No Cinders Encountered.	140	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-PB17-003	Duplicate of B2-PB17-002	130	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-PB15-004	RFI Location PB-15 - Sample Collected at 6-18" Depth Interval. Dark Brown Silt, No Cinders Encountered	170	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-PB11S-005	RFI Location PB-11S - Sample Collected at 6-18" Depth Interval. Dark Brown Silt, No Cinders Encountered	24	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-A90-006	Dark Brown Fill Material 6-18". Fill Material Extends >18". No Cinders Encountered	370	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D90-007	Dark Brown Fill Material 6-18". Fill Material Extends >18". No Cinders Encountered	240	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-H90-008	Dark Brown Fill Material 6-18". Fill Material Extends >18". No Cinders Encountered	360	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-L90-009	Dark Brown Fill Material 6-18". Fill Material Extends >18". No Cinders Encountered	1,300	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-P90-010	Dark Brown Fill Material 6-18". Natural Material Encountered at 18". No Cinders Encountered	420	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-B120-011	Light Brown and Grey Sandy Fill Material 6-18". No Cinders Encountered	1,200	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D120-012	2' Offset South - Against Concrete Wall. Dark Brown Fill 6-18" - Fill Extends >18". No Cinders Encountered	670	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-H120-013	4' SE Offset. Dark Brown Fill 6-18". Refusal at 18". No Cinders Encountered	3,600	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-L120-014	1' Offset West. Adjacent To Concrete Pillar. Dark Brown Fill 6-14". Refusal at 14". No Cinders Encountered	1,100	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-P120-015	Dark Brown Fill 4-16". No Cinders Encountered.	84	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-P120-016	Same Location as B2-P120-015. Collected at 16-22" Native Material.	29	Quanterra	Analytical Report September 11, 1996	4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

**PHASE II REMOVAL AREA
GRID SAMPLING RESULTS**

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-T120-017	Black Fill with Cinders 6-16"	130	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-T120-018	Same Location as B2-T120-017. Dark Brown Fill w/Gravel 16-20"	29	Quanterra	Analytical Report September 11, 1996	4-16
B2-X120-019	Black Fill w/Cinders 4-16". Native Encountered at 16"	3,900	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-BB120-020	Dark Brown Fill with Cinders 3-12". Native Encountered at 12"	11,000	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-B170-21	Offset 10' W - Dark Brown Silty Sand 6-14"	550	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-B170-22	Same Location as B2-B170-21 - Light Grey/Brown Ash 14-24"	400	Quanterra	Analytical Report September 11, 1996	4-16
B2-D160-23	Adjacent To A 4' Footer Running East/West. Dark Brown Silty Sand 6-20" - Refusal @ 20"	840	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D160-24	Duplicate of Sample B2-D160-23	900	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-H160-25	Adjacent To Concrete Footing. Offset 3' S. Dark Brown Silty Sand 6-18"	8,700	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
 PHASE II REMOVAL AREA
 GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-L160-26	Edge of Footer Running North/South. Offset 6' S. Dark Brown Silty Sand 3-20" - Refusal @ 20"	1,800	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-P160-28	Adjacent To Concrete Foundation Oriented North/South. Black Fill with Some Cinders 6-12"	440	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-T160-29	Collected from a 2.5'x3.5' Catch Basin. Dark Brown Silty Sand 3-14"	650	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-T160-30	Same Location as B2-T160-29 @ 14-17"	250	Quanterra	Analytical Report September 11, 1996	4-16
B2-X160-31	Black Fill with Cinders 8-20". Light Brown Sand and Gravel 20-24"	470	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-BB160-32	Dark Brown Silty Sand 3-8". Brown Silty Sand with Some Foundation Materials 9-18"	1,300	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-FF160-33	Dark Brown Silty Sand w/ Some Foundation Material 2-12". Brown Silty Sand with Cinders @ 12-20". Dark Brown Silty Sand with Cinders @ 20-24"	15,000	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-FF120-34	Black Fill w/ Cinders 2-24"	6,900	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-A200-35	Black Fill w/ Cinders 2-12"	250	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-D200-36	Dark Brown Silty Sand with Some Foundation Material 2-12". Reddish Brown Clay w/ Foundation Material 12-16".	190	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-H200-37	Black Silty Sand w/ Building Material and Wood Charcoal 2-12". Brown Silty Sand 12-16"	5,200	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-L200-38	Black Fill w/ Some Cinders 2-8".	170	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-L200-39	Same Location as B2-L200-38. 8-12" - Light Brown Sand Gravel.	30	Quanterra	Analytical Report September 11, 1996	4-16
B2-P200-40	Offset 10'E. Black and Grey Fill with Cinders 2-24"	240	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-T200-41	Dark Brown Silty Sand with Fill 2-12". Mostly Cinders 12-16". All Cinders >16"	98	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-X200-42	Dark Brown Silty Sand w/ Some Cinders 2-16". Native Soil >16".	190	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-BB200-43	Dark Brown Silty Sand 2-24"	53,000	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-PB30-44	Previous RFI Sample Location. Brown Soil w/ Cinders 6-24". Fill Continues > 4'	68 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-PB34-45	Previous RFI Sample Location. Black Soil with Cinders 2-24". Cinders Increase w/ Depth	410 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-BB200-46	Same Location as B2-BB200-43. Light Brown Sand and Gravel (Native Material) @ 24-30"	450 K	Quanterra	Analytical Report September 11, 1996	4-16
B2-FF0-47	Dark Brown Sandy Silt w/ Gravel	420 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-FF40-48	Black Fill w/ Cinders and Coal 0-12"	110 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-FF40-49	Same Location as B2-FF40-48 @ 12-18" - Native Soil	9.4 K	Quanterra	Analytical Report September 11, 1996	4-16
B2-FF90-50	Black Fill w/ Some Cinders and Coal 2-16". Native > 16"	2,500 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-A240-52	Black Fill w/ Some Cinders and Gravel 2-14". Native > 14"	170 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D240-53	Off-Set 2' S. Black Silty Sand 0-12"	2,100 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

PHASE II REMOVAL AREA
 GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-H250-54	Adjacent to Sump. Brown Sandy Silt 4-24"	87 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-L240-55	Dark Brown Silty Sand w/ Some Cinders 4-24"	75 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-L240-56	Duplicate of Sample B2-L240-55	59 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-P240-57	Black Cinders and Coal Fragments 6-24"	39 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-A280-58	West Edge of Road. Black Sandy Silt Fill w/ Bricks, R.R.Spikes and Metal Fragments 2-24"	3,400 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D280-59	Grey Silty Fill 4-8". Dark Brown Silty Sand w/ Some Brick and Cinders 8- 18"	140 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-H280-60	Black Silty Sand w/ Brick and Wood Debris, Some Cinders 6-24"	20,000 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-L280-61	15' NE of Area 2 Hotspot. Black Fill Material, Some Cinders and Brick 0- 12"	2,100 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

**PHASE II REMOVAL AREA
GRID SAMPLING RESULTS**

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-L280-62	Same Location as B2-L280-61. Charcoal Grey Fill Material w/ Cinders 12-24"	380 K	Quanterra	Analytical Report September 11, 1996	4-16
B2-P280-63	Dark Brown Silty Sand w/ Some Cinders 2-24". Fly Ash Material Encountered > 24"	150 K	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-A320-64	Dark Brown Fill w/ Cobbles 6-24"	110	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D320-65	Brown Sandy Silt 0-24". Native > 24"	950	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-H320-66	Dark Brown Fill Silty Sand, Steel and R.R. Encountered 10-30"	1,100	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-L320-67	Brown Sandy Silt 2-20"	19	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-P320-68	Dark Brown Sandy Silt 0-12"	22	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-JJ0-69	Dark Brown Silty Sand 3-9". Native > 9"	140	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-JJ40-70	Dark Brown Silty Sand w/ Some Cinders 0-20"	240	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-JJ90-71	Black Fill w/ Cinders and R.R. Spike Debris 0-24"	830	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-JJ120-73	Dark Brown Sandy Silt 3-9". Native > 9"	76	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-JJ120-74	Duplicate of B2-JJ120-73	63	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-NN0-75	Dark Brown Sandy Silt w/ Some Gravel 0-8". Native > 8"	130	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-MM40-76	Offset 10' N. Black Fill w/ Gravel and Cinders 1-12"	1,000	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-MM40-77	Same Location as B2-MM40-76. 12" Native Encountered	52	Quanterra	Analytical Report September 11, 1996	4-16
B2-NN90-78	Black Fill w/ Cinders 2-24"	2,900	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-NN120-79	Black Silty Sand w/ Cinders 0-12". Native > 12"	54	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

PHASE II REMOVAL AREA
 GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-T240-80	Brown Fill w/ Some Cinders 2-18"	520	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-X240-81	Dark Brown w/ Cinders, InsEncountered R.R. Spur 1-24"	480	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-X240-82	Duplicate of B2-X240-81	60	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-BB240-83	Black Fill w/ Cinders, Some Building Debris - In R.R. Spur 0-24"	66	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-FF240-84	Grey/Brown Fill w/ Cinders 1-24"	43	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-FF200-85	Dark Brown Fill 3-15". Native > 15"	120	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-JJ160-86	Black Sandy Silt w/ Some Gravel 0-24"	3,400	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

**PHASE II REMOVAL AREA
GRID SAMPLING RESULTS**

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-JJ200-87	Black Fill w/ Some Cinder 2-18"	220	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-JJ240-88	Black Fill w/ Cinders and Fill 3-15"	51	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-NN160-89	Dark Brown Sandy Silt w/ Some Gravel and Cinders 0-8". Native > 8"	280	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-NN200-90	Black Silty Sand w/ Cinders 2-8". Dark Brown Sand and Gravel > 8"	1,800	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-NN240-91	10' S of R.R. Bed. Black Fill w/ Cinders 3-12". Native Soil > 12"	100	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-RR240-93	Offset 3' N and 4'W. Black Sandy Silt 0-6". Native > 6"	410	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-VV240-94	Black Fill 3-15". Native > 15"	110	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-ZZ240-95	Brownish Black Sandy Fill w/ Ashes 11-18". Metal Fragments and General Debris > 18"	2,100	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-RR200-96	Dark Brown Silty Sand w/ Gravel 0-6". Light Brown Sand/Gravel > 6"	150	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-VV200-97	Black Sandy Silt 0-4"	2,300	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-VV200-98	Same Location as B2-VV200-97. Light Brown Sand and Gravel 4-18"	33	Quanterra	Analytical Report September 11, 1996	4-16
B2-ZZ200-99	Dark Brown Sand and Gravel 3-15"	48	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-RR160-100	Black Fill Material 3-12". Native > 12"	300	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-VV160-101	Dark Brown Sandy Silt 0-8". Light Brown Sand and Gravel > 8"	110	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-ZZ160-102	Black Fill Material w/ Slag and Cinders 3-18"	100	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-RR40-104	Dark Brown Sandy Silt 3-9". Native > 9"	74	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

**PHASE II REMOVAL AREA
GRID SAMPLING RESULTS**

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-RR90-105	Black Fill w/ Cinders 2-18". Native >18"	380	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-RR120-106	Dark Brown Sandy Silt 3-9"	220	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-VV40-107	Black Fill w/ Cinders 2-16". Native >16"	300	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-VV40-108	Duplicate of 107	320	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-VV90-109	Medium Brown Sandy Silt w/ Some Gravel 3-9"	170	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-VV120-111	Dark Brown Sandy Silt 3-9"	70	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-ZZ40-112	Black Fill w/ Cinders 2-24".	160	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-ZZ90-113	Dark Brown Silty Sand w/ Some Gravel 3-9"	38	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-ZZ120-114	Dark Brown Silty Sand w/ Some Gravel 2-4". Native >4"	64	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-DDD40-115	Black Fill w/ Cinders 3-20"	74	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)

**PHASE II REMOVAL AREA
GRID SAMPLING RESULTS**

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-DDD90-116	Dark Brown Silty Sand w/ Glass Fragments and Building Debris 3-6". Native >6"	640	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-DDD120-117	Dark Brown Silty Sand 0-6". Native >6"	51	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-DDD160-118	Black Soil w/ Building Debris and Some Gravel 3-19"	170	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-DDD200-119	Medium Brown Sandy Silt, No Gravel Evident 0-18". Changes To Tan Sandy Silt w/ Some Gravel 18-20"	19	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-DDD240-120	Medium Brown Sandy Silt 0-15". Gravel, Very Wet Medium Brown Soil. Hole Started To Fill with Water (Approximately 20' From Creek)	51	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D+320-122	Dark Brown Sandy Silt 2-8"	64	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D+320-123	Duplicate of 122	70	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D+320-124	Light Brown Sand and Gravel (Native) 8-14"	11	Quanterra	Analytical Report September 11, 1996	4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
 PHASE II REMOVAL AREA
 GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-D+280-125	Black Silty Sand 3-15". Native >15"	270	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D+240-126	Black Sandy Silt 2-8". 6"x 1" Piece of Metal Bar. Native >8"	620	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-ZZ260-127	Medium Brown Sandy Silt, No Gravel Evident 0-12"	69	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-ZZ260-128	Black Fill w/ Cinders 12-24"	140	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-VV280-129	Black Fill w/ Cinders, Coal, White Residue 6-24". On West Side of Fence. 6" South From RFI Sample PB-39	89	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-DDD250-130	Light Brown Clayey Sand 0-18"	27	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-BB40-131	Black Fill, Dense, Cinders 0-18"	380	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-X40-132	Dense Black Fill w/ Cinders, Coal, Some Charcoal 8-16"	380	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-T40-133	Dense Black Fill w/ Cinders, Coal 3-10"	500	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-P40-134	Black Fill w/ Cinders, Brick, Metal Bar 2-20". Native >20"	2,500	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-A340-135	Dark Brown Silty Sand, Some Gravel 15-18"	100	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D340-136	Dark Brown Silty Sand 3-9". Native >9"	68	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D340-137	Field Duplicate of B2-D340-136	74	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-H340-138	Medium Brown Silty Sand 3-12". Native >12"	13	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-L340-139	Dark Brown Silty Sand 3-16"	23	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-A+160-140	Dark Grey/Brown Fill Material. Grey Ash w/ Brick Fragments. Adjacent To Western Side of Landfill 0-12"	96	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-B+160-141	Dark Grey/Brown Fill Material. Grey Ash w/ Brick Fragments. Adjacent To Western Side of Landfill 0-12"	92	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-B+280-142	Black Silty Sand, Some Gravel, Rock 0-12"	140	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-B+320-143	Dark Grey Fill Material, Some Brick, Cobbles 3-12". Native >12"	170	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D+200-144	Dark Brown/Black Soil 3-10". Black Fill w/ Cinders 10-14"	170	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D200+20-145	Dark Brown Fill, Some Cinders, Cobbles 0-18"	190	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D+160-146	Dark Brown, Reddish Silty Sand, Bricks, Gravel 0-16"	38	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-D260+20-147	Dark Brown Fill w/ Gravel 3-18"	250	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
 PHASE II REMOVAL AREA
 GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-B260-148	Dark Brown Fill w/ Cinders 3-18"	95	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-AAA240-150	Light Brown, Silty Sand, Native 6-18"	27.1	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-PP40-151	Dark Brown, Silty Sand, Brick, Railroad Spikes 4-18". Native >18"	155	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-OO90-152	Black Fill w/ Cinders 6-18"	360	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-P20-153	Black Fill w/ Cinders 6-18"	4,870	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-H20-154	Dark Black Silty Sand, Brick Fragments 4-16"	556	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-M90-155	Dark Brown, Reddish Silty Sand 6-18"	123	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
B2-M120-156	Dark Brown, Reddish Silty Sand 6-18"	123	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-M120-157	Field Duplicate of 156	149	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-M160-158	Dark Brown, Reddish Silty Sand 4-20"	83.9	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
B2-D330-159	Light Brown, Sandy Silt 0-6", Native >6"	45.2	Quanterra	Analytical Report September 11, 1996	4-15 4-16
B2-H330-160	Dark Brown, Silty Sand 0-8", Native >8"	49.0	Quanterra	Analytical Report September 11, 1996	4-15 4-16
BD-IM-213	Grid Location P0	2,949	Quanterra	Analytical Report September 11, 1996	4-15 4-16
BD-IM-214	Grid Location P0, 10'N	532	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
BD-IM-215	Grid Location P0, 10'S	2,643	Quanterra	Analytical Report September 11, 1996	4-15 4-16

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-13 (Continued)
PHASE II REMOVAL AREA
GRID SAMPLING RESULTS

Sample Number	Description	Total Lead Dry Weight Concentration ¹ (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-217	Duplicate of BD-IM-213	1,437	Quanterra	Analytical Report September 11, 1996	4-15 4-16
BD-IM-218	Grid Location P0, 10'E	1,739	Quanterra	Analytical Report September 11, 1996	4-15 4-16
BD-IM-219	Grid Location P0, 10'S, 10'E	869	Quanterra	Analytical Report September 11, 1996	4-15 4-16
BD-IM-220	Grid Location P0, 20'S	3,447	Quanterra	Analytical Report September 11, 1996	4-15 4-16
BD-IM-221	Grid Location P0, 40'S, 30'E	5.45	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
BD-IM-222	Grid Location P0, 15'S, 30'E	4.79	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
BD-IM-223	Grid Location P0, 10'N, 30'E	<2.18	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17
BD-IM-224	Grid Location P0, 40'S	2.99	Quanterra	Analytical Report September 11, 1996	4-15 4-16 4-17

¹ Results have been validated. See Appendix D for discussion of data validation qualifiers.

TABLE 4-14

**PHASE II REMOVAL AREA
BASE CONFIRMATORY SAMPLE RESULTS**

Sample Number	Location	Depth Below Ground Surface	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-198	Phase II, Lead Hot Spot a (53,000 mg/kg)	2-3'	450	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-199	Phase II, Lead Hot Spot b (15,000 mg/kg)	2-3'	2,244	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-229	Phase II, Lead Hot Spot b (15,000 mg/kg)	3-4'	11.7	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-200	Phase II, Lead Hot Spot c (6,900 mg/kg)	2-3'	68.9	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-201	Phase II, Lead Hot Spot d (11,000 mg/kg)	2-3'	462	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-202	Phase II, Lead Hot Spot e (20,000 mg/kg)	2-3'	22.3	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-203	Phase II, Lead Hot Spot f (5,200 mg/kg)	2-3'	799	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-204	Phase II, Lead Hot Spot g (8,700 mg/kg)	2-3'	77.0	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-230	Sub-Area E East (14-16')	2-3'	13.5	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-231	Sub-Area E East (16-20'S)	2-3'	<2.20	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-225	Sub-Area A	2-3'	21.0	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-226	Sub-Area B	2-3'	4.25	Bayer	Damascus Closure November 27, 1996	4-21

TABLE 4-14 (Continued)

**PHASE II REMOVAL AREA
BASE CONFIRMATORY SAMPLE RESULTS**

Sample Number	Location	Depth Below Ground Surface	Total Lead Dry Weight Concentration (mg/kg)	Laboratory	Corresponding Laboratory Report	Figure
BD-IM-210	Sub-Area F	2-3'	14.1	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-211	Sub-Area I	2-3'	3.73	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-212	Sub-Area J	2-3'	32.9	Bayer	Damascus Closure November 27, 1996	4-21
BD-IM-227	Duplicate of BD-IM-225	2-3'	21.8	Bayer	Damascus Closure November 27, 1996	4-21

TABLE 4-15

ASBESTOS CLEARANCE AIR SAMPLING

Sample Number	Laboratory	Corresponding Laboratory Report	Description	Type of Sample	Pump #	Total Minutes	Flow Rate LPM	Total Volume	Detection Limit	# Fibers	# Fields	F/CC
FMF 01	All South Environmental Services	Luke Green Co., Inc. Former Mobay Facility Air Monitoring Report August 1, 1996	Adjacent to Roof Removal Work Area - East	Perimeter	AS 8091	572	5.0	2860	0.002	0.0	100	<0.002
FMF 02	All South Environmental Services	Luke Green Co., Inc. Former Mobay Facility Air Monitoring Report August 1, 1996	Roof Removal Work Area - Roof Area	Work Area	AS F	581	5.0	2905	0.002	1.5	100	<0.002
FMF 03	All South Environmental Services	Luke Green Co., Inc. Former Mobay Facility Air Monitoring Report August 1, 1996	Dumpster Loading Area - Roof Removal	Perimeter	AS J	586	5.0	2930	0.002	3.5	100	<0.002

TABLE 4-16
GRASS PLANTED
FTDP FACILITY
DAMASCUS, VIRGINIA

CONTRACTOR	METHOD	AREA	DATE	SEED TYPE
Big Valley Seed Company	Hydroseed	Northern Process Area	10/15/96	Kentucky K-31 Orchard Grass Lading Clover Birdsfoot Trefoil Weeping Love Grass Winter Rye
Big Valley Seed Company	Hydroseed	Phase I Removal Area New Drainage Swale	11/19/96	Kentucky K-31 Red Clover Red Top Winter Rye
Selco Seeding Company	Hydroseed	Large Colored Soil Area	9/11/96	Kentucky K-31 Winter Rye Orchard Grass Annual Rye Yellow Sweet Clover Perennial Rye Red Clover Birdsfoot Weeping Love Grass Foxtail Millet
ICF Kaiser Remediation	Hand Seed	Lead Hot Spots 3, 6 Old Bunker Flood Debris Landfill Dirt Roads Small Colored Soil Area	8/17/97 8/17/96 8/22/96 8/24/96 9/24/96	Kentucky K-31 (with straw mulch)

TABLE 4-17

**WILDFLOWERS PLANTED IN THE NORTHERN PROCESS AREA
FTDP FACILITY
DAMASCUS, VIRGINIA**

WILDFLOWER	QUANTITY (lbs)
Heath Aster	0.023
Lance-Leaved Coreopsis	0.716
Butterfly Milkweed	1.662
Wild Bergamot	0.058
Purple Coneflower	1.236
Downy Sunflower	0.704
Smooth Blue Aster	0.113
Perennial Lupine	6.787
Showy Coneflower	0.164
Indian Paintbrush	0.014
Black-Eyed Susan	0.085
Gayfeather	0.214

AR000431

5.0 QUALITY ASSURANCE

Sampling activities were pivotal to the successful completion of the IMs. A significant amount of time and energy was devoted to collecting, analyzing, and evaluating sample data to ensure that the IM objectives were achieved. The sampling procedures employed in the field and by the analytical laboratory were conducted in accordance with the guidelines and standard practices defined in the USEPA approved Field Sampling/Waste Management Plan (ICF Kaiser 1996b).

A Quality Assurance Project Plan (QAPjP) (ICF Kaiser, 1996e) was prepared to ensure that quality Assurance (QA) and Quality Control (QC) methods utilized during preparation and analysis of the samples collected during the IMs met all the requirements of the USEPA or the affected State agencies.

Table 5-1 lists the analytical parameters, methods, bottle requirements, preservation requirements, and holding times for the analyses performed during completion of the IMs. Table 5-2 provides a summary of the samples taken and the analyses performed.

5.1 DATA QUALITY OBJECTIVES

The field collection efforts at the Bayer Corporation's FTDP generated a variety of data. In accordance with USEPA Data Quality Objective (DQO) policy ("Data Quality Objective Guidance, USEPA/540/687/003 and 004), the quality of analytical data required in each task was specified by assignment of analytical DQO levels. The analytical DQO levels were defined as follows:

- Level I - field screening or analysis using portable instruments. Results are often not compound specific and not quantitative but are available in real-time. It is the least costly of the analytical options.
- Level II - field analyses using more sophisticated portable analytical instruments; in some cases the instruments may be set up in a mobile laboratory on-Site including geotechnical and disposal analyses (grain size, bulk density, BTU, etc.). There is a wide range in the quality of data than can be generated. Results are available real-time or within several hours.
- Level III - all analyses are performed in an off-Site analytical laboratory. Level III analyses may or may not use USEPA Contractor Laboratory Program (CLP) procedures, but do not usually utilize the validation or documentation procedures required of CLP Level IV analysis. Specific analysis include characteristic analyses (TOC, halogens, cyanide, etc.).
- Level IV - routine analytical services (RAS) including Target Compound List (TCL) organic, Target Analyte List (TAL) metal, and dioxin analyses. All analyses are performed in an off-Site CLP analytical laboratory using CLP protocols. Level IV is characterized by rigorous QA/QC protocols and documentation.
- Level V - analysis by non-standard methods. All analyses are performed in an off-Site analytical laboratory which may or may not be a CLP laboratory. Method development or method modification may be required for specific constituents or detection limits.

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In general, samples that were collected for the IMs required DQO Level III. All field measurements were assigned a DQO Level I.

5.2 QUALITY CONTROL SAMPLES

The precision and accuracy of the field sampling procedures was checked through the preparation, collection, submission and analysis of duplicate samples, split samples, trip blanks, and rinsate blanks.

Trip blank samples consisted of a set of sample containers filled with analyte free water obtained from the analytical laboratory. Blank water was the same water as used by the lab for method blanks. The blanks were never opened in the field. Trip blanks were submitted at a frequency of one per sample shipment containing samples which were analyzed for volatiles. Trip blanks for all matrices were analyzed for volatile organics and were only collected when samples were analyzed for volatile organics.

A rinsate blank consisted of two sets of laboratory cleaned sample containers. One set of containers was filled at the laboratory with analyte free water (ASTM Type II or equivalent). At the field location, the analyte free water was passed over and through previously decontaminated sample equipment and placed in the empty set of sample containers for analysis. One rinsate blank was submitted per twenty (20) samples or per week in which sampling occurred, whichever occurred first. Rinsate blanks were analyzed for the same parameters as the samples collected that day.

Field duplicates were used to assess sample representativeness. Field duplicates were prepared by collecting two samples independently at the same location during a single act of sampling. Duplicate samples were collected at a frequency of one in twenty samples, per matrix, per analytical method, per round of sampling.

The holding times, preservation, shipment and storage of the quality control samples mentioned above are described in Table 5-1.

The analytical laboratory may follow the internal quality control procedures specified in the SW-846 organic and inorganic methods. A matrix spike and matrix spike duplicate (MS and MSD) are required as part of the SW-846 quality control procedures. The field sampling crew must coordinate with the lab to ensure that an extra sample is collected as needed for the MS/MSD.

5.3 DATA VALIDATION

The validation of laboratory data was performed in accordance with the specific methodology performed and with criteria presented in the EPA Region III Modifications to the National Functional Guidelines (Organics - 6/92 and Inorganics - 4/93) where applicable.

The validation process determines whether the data are technically valid, of known or acceptable quality, and are legally defensible. Validity of the data was assessed by observing the degree to which established procedures and methods were followed and by comparing the QA/QC data to the established criteria. The validation process reviewed the analytical data for compliance based on the following QC parameters:

QC Parameter	Acceptance Criteria
Volatile Organic Compounds (GC/MS) SW-846 Method 8260	
Holding time	Analysis completed within 14 days of sample collection.
BFB Tune	Analyzed before sample analysis and every 12 hours. Tune must meet ion ratio and abundance criteria.
Initial Calibration	1. Initial calibration % RSD for all CCCs is $\leq 30\%$. 2. RF for SPCCs: >0.10 for chloromethane, 1,1-dichloroethane, bromoform; >0.30 for chlorobenzene, 1,1,2,2-tetrachloroethane.
Continuing Calibration	1. Continuing calibration %D for CCCs from initial calibration is $\leq 20\%$. 2. RF for SPCCs: >0.10 for chloromethane, 1,1-dichloroethane, bromoform; >0.30 for chlorobenzene, 1,1,2,2-tetrachloroethane.
Internal Standard Responses and Retention Times	1. Retention time for any internal standard must be within 30 seconds of the latest daily calibration standard. 2. The area counts for all internal standards must be within a factor of two (-50% to $+100\%$) of the daily standard.
Method, Trip, and Rinsate blanks	Document detected compounds and qualify sample results greater than 5X the blank concentration.
Surrogate Spikes	Surrogates not meeting method derived limits must be re-analyzed to confirm matrix interference. Qualify results outside of criteria.
Matrix spike/Matrix spike duplicate	No action is taken on the MS/MSD alone. However, using professional judgment, the reviewer may use the MS/MSD results in conjunction with other QC criteria to qualify data.
QC Parameter	Acceptance Criteria
Semi-volatile Organic Compounds GC/MS SW-846 Method 8270	
Holding time	Analysis completed within 7 days of sample collection for aqueous samples, 14 days for soil samples.
DFTPP Tune	Analyzed before sample analysis and every 12 hours. Tune must meet ion ratio and abundance criteria.
Initial Calibration	1. Initial calibration %RSD for all CCCs is $\leq 30\%$. 2. RF for SPCCs: >0.05 .
Continuing Calibration	1. Continuing calibration %D for CCCs from initial calibration is $\leq 20\%$. 2. RF for SPCCs: >0.05 .

Internal Standard Responses and Retention Times	1. Retention time for any internal standard must be within 30 seconds of the latest daily calibration standard. 2. The area counts for all internal standards must be within a factor of two (-50% to +100%) of the daily standard.
Method and Rinsate blanks	Document detected compounds and qualify sample results greater than 5X the blank concentration.
Surrogate Spikes	Surrogates not meeting method derived limits must be re-analyzed to confirm matrix interference. Qualify results outside of criteria.
Matrix spike/Matrix spike duplicate	No action is taken on the MS/MSD alone. However, using professional judgment, the reviewer may use the MS/MSD results in conjunction with other QC criteria to qualify data.
QC Parameter	Acceptance Criteria
Metals by ICP SW-846 Method 6010	
Holding time	Analysis completed within 180 days of sample collection.
Matrix Spikes	Spike recovery criteria 75-125%.
Field Duplicate	Percent Difference $\pm 35\%$.
Laboratory Duplicate	Percent Difference $\pm 20\%$.

Analytical data that did not meet the method QC criteria were given the appropriate data qualifier. The data qualifiers indicate to the user whether the data are usable for their intended purpose and may provide the direction of bias. The qualifiers utilized for data validation are defined as follows:

- U- Indicates that the compound is not detected above the concentration listed.
- J- Results are estimated and quantitation of the analyte is more uncertain.
- R- Results are rejected and data are invalid for all purposes.
- K- The reported value may be biased high.
- L- The reported value may be biased low.

The summary of results along with data qualifiers are presented in Appendix D. The data validation reports presented in Appendix D summarize the QC checks performed on the data associated in a particular data package and how the qualifiers were applied to the data.

5.4 SUMMARY

Four hundred fifty-seven (457) samples were collected during implementation of the IMs. Four hundred forty-eight (448) of these samples were validated by a chemist. Three (3) air clearance samples collected

during asbestos abatement of the Warehouse Building and six (6) air samples analyzed for lead that were collected during operations to remove lead contaminated soils were not validated.

All sample data was determined to be useable. No data was rejected. Some data has been qualified, but is still useable as defined by the qualifiers associated and presented in the data summaries in Appendix D.

TABLE 5-1

SUMMARY OF ANALYTIC PARAMETERS, METHODS, BOTTLE REQUIREMENTS,
PRESERVATION REQUIREMENTS, AND HOLDING TIMES
BAYER CORPORATION - FTDP PROJECT - DAMASCUS, VA

Test	Matrix	SW-846 Method	Conl./Pres.	Sample Size	Holding Time
TCLP - Volatiles	Soil	1311/8260	4 oz., Glass, 4°C	25 g	14 days to TCLP Extraction 14 days to Analysis
TCLP - Semi-Volatiles	Soil	1311/8270	4 oz., Glass, 4°C	200 g	14 days to TCLP Extraction 7 days to Sample Extraction 40 days to Analysis
TCLP - Metals (Except Hg)	Soil	1311/6010	4 oz., Glass, 4°C	200 g	180 days to TCLP Extraction 180 days to Analysis
TCLP - Mercury	Soil	1311/7470	4 oz., Glass, 4°C	25 g	28 days to TCLP Extraction 28 days to Analysis
pH	Soil	9045	4 oz., Glass, 4°C	10 g	Analyze Immediately
Ignitability	Soil	1010	4 oz., Glass, 4°C	10 g	7 days
Reactive Cyanide	Soil	9010	4 oz., Glass, 4°C	10 g	(14 days)
Reactive Sulfide	Soil	9030	4 oz., Glass, 4°C	10 g	(14 days)
Total Lead	Soil	7421	4 oz., Glass, 4°C	5 g	6 months
Asbestos	Soil	I.A.W. PB93-218-576 ¹	6-mil Plastic Bag	50 g	Unknown

Note: The number of sample containers was reduced, if preservation and volume requirements allowed several analyses to be conducted from a single container.

¹ NTIS Publication PB93-218-576, Methods for the Determination of Asbestos in Bulk Building Material.

TABLE 5-2

BAYER CORPORATION - FTDP PROJECT - DAMASCUS, VIRGINIA

Purpose	Analysis	Phase I Lead Hot Spots							Phase II Removal Area		Phase II Lead Hot Spots	
Characterization	TCLP - Volatiles	1	1	1	1	0	0	0	0	0	0	
	TCLP - Semi-Volatiles	1	1	1	1	0	0	0	0	0	0	
	TCLP - RCRA Metals	1	1	1	1	0	0	0	0	11	1	
	TCLP - Lead Only	0	0	0	0	0	0	0	0	10	0	
	Total - Volatiles	0	0	0	0	0	2	0	0	0	0	
	Total - Semi-Volatiles	0	0	0	0	0	2	0	0	0	0	
	Total RCRA Metals	0	0	0	0	0	2	0	0	11	1	
	Total Lead	0	0	0	0	0	0	2	0	0	0	
	pH	1	1	1	1	0	0	0	0	0	0	
	Ignitability	1	1	1	1	0	0	0	0	0	0	
	Reactive Cyanide	1	1	1	1	0	0	0	0	0	0	
	Reactive Sulfide	1	1	1	1	0	0	0	0	0	0	
	Asbestos	0	0	0	0	1	0	0	0	0	0	
Confirmatory	Total Lead	156	35	0	15	0	0	0	0	188	8	
Health & Safety	Lead	0	0	0	0	0	0	0	6	0	0	
	Asbestos	0	0	0	0	0	0	0	3	0	0	

Note: The number of samples does not include rinseate blanks, laboratory duplicates, and/or MS/MSDs.

6.0 RISK ASSESSMENT

This section presents the post-excavation calculation of residual lead concentrations in the surface soil at the FTDP. These calculations provide information regarding the levels and risks associated with lead after the IMs were completed. The results of the risk assessment summarized in this section should not be confused with the results of the Human Health Risk Assessment that was previously completed and presented in the Final (Revision 2) RCRA Facility Investigation Report (ICF Kaiser, 1996f). The RFI risk assessment was conducted prior to performance of the IMs, therefore, before soil with lead concentrations greater than the cleanup criteria was removed. The risk assessment presented in this section was completed to ensure that the 95% UCL of lead concentrations in each of the four quadrants dividing the Southern Non-Process Area of the Site are less than 400 mg/kg as required by the USEPA.

6.1 BACKGROUND

USEPA established two criteria for determining when the lead contaminated surface soil removal conducted during the IMs was complete. USEPA's first criteria required that total lead concentrations in any remaining soil not exceed 1,000 mg/kg. This criteria was applied to any individual sample collected during the RFI or any confirmation samples collected during the IM. USEPA's second criteria specified that the Southern Non-Process Area was to be divided into four roughly equal quadrants, and the 95% upper confidence limit (UCL) of lead concentrations in any one quadrant could not exceed 400 mg/kg. The following sections present the methods used to divide the Southern Non-Process Area into quadrants, the data that were included in this evaluation, the methodology for calculating the 95% UCLs, and the resulting UCL lead concentrations for each quadrant.

6.2 AREAS OF EVALUATION

For the purpose of this assessment, the Southern Non-Process Area was divided into four areas of evaluation: Quadrant I (southwest area), in the area of Lead Hot Spot 2; Quadrant II (southeast area), in the area of Phase I Lead Hot Spots 4, 5, and 6; Quadrant III (northwest area), in the area of Phase I Lead Hot Spot 7 and the Large Colored Soil Area; and Quadrant IV (northeast area), in the area of Phase I Lead Hot Spot 3 and the Flood Debris Landfill (see Figure 6-1). The Site was divided north-to-south and west-to-east so that each quadrant would be approximately the same size and not biased toward lead presence.

6.3 DATA USED FOR ASSESSMENT

Lead data from surface soil samples collected from June 1990 through August 1996 (RFI and IMs) were incorporated into this assessment. This includes the Phase I and Phase II RFI surface soil samples collected to characterize the Site and all IM post-excavation surface soil confirmatory samples. Pre-excavation confirmatory samples that were collected from a soil area that has since been removed were excluded from the evaluation. Confirmatory soil samples collected from the bottom of the excavations were also excluded since the excavations were backfilled with clean fill. Three samples collected during the RFI (3-PT-6, 3-PT-7, and 3-PT-8) were not included because they are separated from the main Site area by the creek. A summary of the sample numbers included in this evaluation is presented in Table 6-1, and the locations are provided on Figure 6-1.

6.4 REPRESENTATIVE LEAD CONCENTRATIONS

All the lead results for samples collected in each quadrant were combined to derive a representative concentration, or the concentration of lead to which a potential receptor may be exposed. USEPA risk assessment guidance (USEPA, 1992) stipulates that representative concentrations for data that fit a normal or lognormal distribution should be based on the 95% Upper Confidence Limit (95% UCL) of the arithmetic mean to estimate a Reasonable Maximum Exposure (RME) scenario. RME conditions are defined by USEPA (1989a) as the "highest exposure that is reasonably expected to occur at the Site."

The Shapiro and Wilk test (W-test) was performed using Statistical Analysis System (SAS, 1989) to determine whether each data set fit a normal or lognormal distribution. The program output is included in Appendix E. It was determined that data from Quadrant IV fit a lognormal distribution; none of the quadrants fit a normal distribution.

Quadrant I, II, and III data fit neither a normal nor a lognormal distribution. In these cases, the distribution which most closely matches the data set is to be selected and the corresponding 95% UCL calculation is to be employed. For these three data sets, a lognormal distribution was chosen.

The following equation is used to calculate the 95% UCL for data sets that fit a lognormal distribution (USEPA, 1992):

$$95\% \text{ UCL} = \exp\left(\bar{y} + 0.5 \sigma_y^2 + \frac{\sigma_y H}{\sqrt{n-1}}\right)$$

where:

95% UCL	=	95% upper confidence limit
\bar{y}	=	mean of log-transformed data
σ	=	standard deviation of the log-transformed data
H	=	H-statistic for the one-sided (upper) confidence limit
n	=	number of samples

6.5 RESULTS AND CONCLUSIONS

Table 6-2 presents the results of the statistical evaluation, as well as the representative lead concentration for each quadrant at the FTDP. The lead concentration calculated for each quadrant is below the target of 400 mg/kg; the acceptable lead concentration for unrestricted land use (USEPA, 1994). Therefore, lead is not present at levels of concern in any of the soils remaining at the Site nor does the Site pose a risk to the public.